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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------------------------------------------------------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/018,456 | 12/12/2001 | Heinz-Dieter Beeck | 22064 | 2533 |
| 535 | 7590 | 11/04/2003 | EXAMINER | |
| THE FIRM OF KARL F ROSS 5676 RIVERDALE AVENUE PO BOX 900 RIVERDALE (BRONX), NY 10471-0900 | | | DEL SOLE, JOSEPH S | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1722 | |

DATE MAILED: 11/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------|------------------------------|--|
| Office Action Summary | Application No. 10/018,456 | Applicant(s) BEECK ET AL. | |
| | Examiner Joseph S. Del Sole | Art Unit 1722 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 3 is/are allowed.
- 6) ☒ Claim(s) 2 and 4-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>10/2/03</u> | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

1. The information disclosure statement filed 10/2/03 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein concerning the foreign patent has not been considered.

Claim Objections

2. Claim 6 is objected to because of the following informalities: **a)** claim 6 is missing an appropriate link between "claim 3" and "the spinneret plate" such as -wherein-. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 2, 4, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schroeder et al (5,601,854) in view of Coates (3,768,661).

Schroeder et al teach a spinneret having a central inlet passage (Fig 3, #6); a filter arrangement (Fig 3, #8) of one filter disk; a spinneret plate (Fig 3, #9); a housing (Fig 3, #10) having a bore surrounding and receiving the filter arrangement and the spinneret plate; the spinneret plate is secured to the housing; there is a play fit between both of spinneret plate and filter and the housing; and the housing has at its lower end a projecting collar which has at least three grooves (Fig 3). The Examiner notes that the limitations: "so that a press-fit seal able to sustain pressure of a polymer melt is formed directly between the spinneret plat and said housing"; "at room temperature which is transformed at operating temperatures based upon the different expansions of the parts, into a self sealing radial press fit" and "for receiving a tool for screwing the spinning system in and out and in that the spinneret plate (3) is thereby protected against detrimental contact during handling" are process limitations dependent upon the

pressure of the polymer melt and the conditions under which the apparatus is operated and therefore do not further limit the structure of the claimed apparatus.

Schroeder et al fail to teach the spinneret plate being a material with a higher thermal expansion coefficient than that of the material from which the housing surrounding it is fabricated; and fails to teach the spinneret plate and the filter arrangement composed of austenitic steel selected from steel Nos. 1.4301, 1.4541 and 1.4580 with a relatively high thermal expansion coefficient and the housing fabricated from steel No. 1.4057.

Coates teaches a spinneret component (Fig 1, #23) secured to the housing due to being a material with a higher thermal expansion coefficient than that of the housing (col 2, lines 13-37) for the purpose of producing differential expansion and good sealing (col 1, lines 5-30 and col 2, lines 52-56).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of Schroeder et al by providing different materials as the materials of the sealed components as taught by Coates because it simplifies sealing without additional components.

Further regarding claim 4, the use of austenitic steel of Nos. 1.4301, 1.4541, 1.4580 or 1.4057 as the materials of which the spinneret plate, filter and housing are made, the selection being on the basis of suitability for the intended use, would be readily determined by routine experimentation in an effort to produce the optimum results absent a showing of unexpected results. Under some circumstances, however, the selection of steels with these numbers may impart patentability to an apparatus if

the material claimed produces a new and unexpected result which is different in kind and not merely in degree from the results of the prior art.

7. Claim 2, 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheiber et al (5,387,097) in view of Coates (3,768,661).

Scheiber et al teach a spinneret having a central inlet passage (Fig 1, #19); a filter arrangement (Fig 1, #3) of one filter disk; a spinneret plate (Fig 1, #11); a housing (Fig 1, #4) having a bore surrounding and receiving the filter arrangement and the spinneret plate; the spinneret plate is secured to the housing and there is a play fit between both of spinneret plate and filter and the housing. The Examiner notes that the limitations: "so that a press-fit seal able to sustain pressure of a polymer melt is formed directly between the spinneret plat and said housing" and "at room temperature which is transformed at operating temperatures based upon the different expansions of the parts, into a self sealing radial press fit" are process limitations dependent upon the pressure of the polymer melt and the conditions under which the apparatus is operated and therefore do not further limit the structure of the claimed apparatus.

Scheiber et al fail to teach the spinneret plate being a material with a higher thermal expansion coefficient than that of the material from which the housing surrounding it is fabricated; and fails to teach the spinneret plate and the filter arrangement composed of austenitic steel selected from steel Nos. 1.4301, 1.4541 and 1.4580 with a relatively high thermal expansion coefficient and the housing fabricated from steel No. 1.4057.

Coates teaches a spinneret component (Fig 1, #23) secured to the housing due to being a material with a higher thermal expansion coefficient than that of the housing (col 2, lines 13-37) for the purpose of producing differential expansion and good sealing (col 1, lines 5-30 and col 2, lines 52-56).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of Scheiber et al by providing different materials as the materials of the sealed components as taught by Coates because it simplifies sealing without additional components.

Further regarding claim 4, the use of austenitic steel of Nos. 1.4301, 1.4541, 1.4580 or 1.4057 as the materials of which the spinneret plate, filter and housing are made, the selection being on the basis of suitability for the intended use, would be readily determined by routine experimentation in an effort to produce the optimum results absent a showing of unexpected results. Under some circumstances, however, the selection of steels with these numbers may impart patentability to an apparatus if the material claimed produces a new and unexpected result which is different in kind and not merely in degree from the results of the prior art.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Scheiber et al (5,387,097) or Schroeder et al (5,601,854) in view of Coates (3,768,661) and further in view of EP0623693A2.

Scheiber et al, Schroeder et al and Coates teach the apparatus as discussed above.

Scheiber et al and Schroeder et al each fail to teach spinneret plate having at its lower half a thread which is screwed into the housing, whereby the thread and the stop of the spinneret plate in the housing are so formed that the spinning orifice pattern always has the same orientation.

EP0623693A2 teaches a spinneret plate (Fig 3, #6) having a thread screwed into the housing for the purpose of interconnecting the spinneret to outer components (abstract).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of either Scheiber et al or Schroeder et al with the spinneret plate having a thread screwed into the housing as taught by EP0623693A2 because it enables the spinneret body to be connected to components outside the housing.

Allowable Subject Matter

9. Claims 1 and 3 are allowed.
10. Claims 4, 5, 6 and 7 would be allowable if amended to remove the dependence of each of the claims on rejected claim 2.

Response to Arguments

11. Applicant's arguments filed 10/2/03 have been fully considered but they are not persuasive.

The Applicant argues that claim 2 requires a press fit between the spinneret plate and the housing and that is not shown in the art which has been cited.

The Examiner disagrees. Claim 2 is rejected for the reasons cited above.

The Applicant argues that reference Coates (3,768,661) teaches a seal and since the seal can be used only once it is precisely the replaceable seal that the invention avoids by providing the press fit.

While this may be true, the combinations of the references with Coates still teach the inventions of claims 2-7. The Applicant fails to make an argument citing specific structural limitations claimed that are not taught by the cited prior art.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph S. Del Sole whose telephone number is (703) 308-6295. The examiner can normally be reached on Monday through Friday from 8:30 A.M. to 5:00 P.M.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Wanda Walker, can be reached at (703) 308-0457. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for both non-after finals and for after finals.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Joseph S. Zell Sale

J.S.D.
October 27, 2003



ROBERT DAVIS
PRIMARY EXAMINER
GROUP 1300-1700

10/30/03